

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-05100025-2012**
Application Received: **November 2, 2011**
Plant Identification Number: **051-00025**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Majorsville Station**
Mailing Address: **1700 MacCorkle Avenue SE**
Charleston, WV 25314

Physical Location:	Dallas, Marshall County, West Virginia
UTM Coordinates:	540.9 km Easting • 4,423.6 km Northing • Zone 17
Directions:	From Charleston take I-77 North to Exit 44A, I-70 East and proceed to exit 11 for Dallas Pike, turn right onto Dallas Pike and travel approximately 1.7 miles, then take slight left onto Middle Wheeling Creek Rd./Old Co Rt 39. Continue onto Dallas Pike for 3 miles, turn right onto #2 Ridge Rd for 1.4 miles, then turn left onto Warton Hill Rd/Co Hwy 26/1 for 335 ft. Turn Right to stay on Warton Hill for 2.6 miles. This will be a dirt road. Next turn right onto Calis Majorsville Rd. At this point you will see the facility on the right. Location is approximately 3.5 hrs. from Charleston.

Facility Description

The Majorsville facility receives gas from area gathering lines and transports it to Mark West's liquids plant, which is adjacent to the Majorsville facility. The gas passes back through Columbia's lines upon leaving MarkWest's facility but is not compressed at this time. There are two different pipelines coming into the facility and two going out. Mercaptan odorant is added to one of the existing pipelines for Columbia.

The station has the capacity to operate seven (7) days per week, twenty-four (24) hours per day. The Station's compressors and generators consist of four (4) 1320 hp Ingersoll-Rand 412 KVG 4SRB engines, one (1) 360 hp AJAX 2SLB engine, and two (2) 130 hp 4SRB LeRoi emergency generators. Additionally, the station operates a 2.94 MM Btu/hr heating boiler, which is fueled by natural gas.

The facility also utilizes several small storage tanks for natural gas condensate, wastewater, ethanol, used oil, and mercaptan. The largest of which is tank A06 at 5,118 gallons. This tank as well as tank A10 are listed as pipeline liquids tanks, but were observed by the writer onsite as being emptied out and labeled as such. Tanks A07 and A08 were observed as in use pipeline liquids tanks, which were being fed from field condensate barrels, which were delivered onsite.

As a result of the A06 and A10 tanks being empty and seldom used according to plant personnel, they were determined to be insignificant, with a reduced potential for creating odors. Therefore, it was not necessary to add storage tanks A06 and A10 to the Emission Units Table at this time.

During the site visit it was observed and later confirmed by Joe Morgan of NiSource that tanks A09, B11, and A13 have been removed from the site. Additionally, the 3.0 MM Btu/hr line heater (HT3), TEG dehydrator (TEGDEHY1), dehy flare (FLLP1), and the dehydration reboiler (BLR5) were disconnected from service piping and are no longer being used. These emission units were not included in the Emission Units Table.

The A12 mercaptan tank as well as the A07 and A08 pipeline liquids tanks were added to the Emission Units Table as a result of their potential to create objectionable odors. The mercaptan odors are due to the sulfur bearing compounds which have very low odor thresholds. The condensate tanks A06 and A10 also have the potential to create objectionable odors as a result of storing volatile organic liquids with appreciable vapor pressures.

The A12 mercaptan tank's MSDS was obtained from the company and found not to store methyl mercaptan but a mix of propyl and butyl mercaptans, which exhibits lower vapor pressures, and thus lower VOC emission potential. Additionally, the facility's flare was no longer needed to abate mercaptan emissions from the A12 tank during refills due to the supplier now incorporating a vapor balance system from the tank back to the transport truck.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2010 Actual Emissions
Carbon Monoxide (CO)	68.13	1.53
Nitrogen Oxides (NO _x)	1,299.51	66.62
Particulate Matter (PM ₁₀)	29.64	0.01
Total Particulate Matter (TSP)	29.64	0.01
Sulfur Dioxide (SO ₂)	0.17	0.01
Volatile Organic Compounds (VOC)	15.65	1.57

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2010 Actual Emissions
Acetaldehyde	2.19	Not Reported
Formaldehyde	7.0	0.68

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit approximately 1,300 tpy of NO_x. Due to this facility's potential to emit over 100 tons per year of NO_x, Columbia Gas Transmission, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Fuel Burning Sources
	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Minor Source NSR Construction and Modification Permits
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 61	Asbestos inspection and removal
State Only:	40 C.F.R. 63, Subpart ZZZZ	Area Source RICE Standards
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR17	Fugitive Particulate Matter

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2173A	10-30-2001	
CO-R13-E-2012-15	08-20-2012	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

This facility was previously registered under General Permit R30-NGGP-2007 for Natural Gas Compressor Facilities. The Division of Air Quality did not renew the general permit for natural gas compressor facilities, therefore this facility's renewal will be issued as a source-specific permit. The source-specific permit includes various requirements which are potentially applicable to natural gas compressor stations. The applicable requirements column in the Section 1.0 Emission Units Table of the permit indicates which of the requirements in Sections 2.0 through 24.0 are applicable to each emissions unit.

40C.F.R.63, Subpart ZZZZ

The Majorsville facility was found to have 7 compressor engines which will become subject to area source RICE requirements under this regulation. The most significant emission requirements will apply to the 4 large 1320 hp Ingersoll-Rand KVG 412 engines. Since they are existing 4SRB engines greater than 500 hp they will be required to comply with formaldehyde reduction requirements by October 19, 2013. Additionally, the 360 hp AJAX 2SLB compressor engine as well as the two 130 hp 4SRB emergency generators will be required to implement the maintenance work practice standards of subpart ZZZZ by October 19, 2013 as well.

During the review of the renewal application, the 1957 Ingersoll-Rand engine E02 experienced a bearing failure, which required the engine to be off line until maintenance could be performed on the unit. As a result, the company requested to bring in a temporary replacement engine to fill in for the E02 unit. This activity is covered by an Enforcement Consent Order number CO-R13-E-2012-15, issued on 8-20-12. The conditions of the consent order are cited within this Title V renewal permit as referenced in permit condition 21.0.2. The consent order is also supplied as an appendix to the operating permit.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

40C.F.R.63, subpart JJJJJ for area source boilers does not apply to the Majorsville facility due to meeting the exemption criteria for natural gas fired existing units.

40C.F.R.63, subpart HH for area source TEG dehydration units was found not to be applicable any longer since the facility removed their dehydrator from service. Although a small reboiler was listed as being onsite it was observed to be disconnected and out of service. The company stated that there were no plans for using the dehydration unit in the future. Additionally, the facility was evaluated for pipeline condensate tanks having flash potential, but no tanks were identified as being fed by pressurized separators. The company elaborated during a site visit conducted by the writer that the pipeline liquids tanks A07 and A08

were fed from drums of natural gas condensate brought in from various field locations. Even if they did have flash potential their throughputs are all below the criteria defined within the definition of tanks with flash potential under 40 C.F.R. 63, subpart HH.

45CSR13 Minor Source NSR Permitting Program

It was determined by the writer that activities covered under minor source NSR permit R13-1523F for the TEG dehydration unit as well as R13-2362-P1A for a mobile glycol reclaimer unit are no longer applicable and/or in effect since the dehydration operations at the facility have been discontinued with no plans of restarting.

There are no Greenhouse Gas Clean Air Act requirements for this facility because the facility has not made any changes that triggered a PSD permit modification.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: September 14, 2012

Ending Date: October 15, 2012

All written comments should be addressed to the following individual and office:

Jesse Hanshaw, P.E.
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Jesse Hanshaw, P.E.
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1216 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Pending